

Section 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Product name **Smart-Jet® 80430**
Synonym(s) White ink
Registration number REACH Not applicable (mixture)

1.2. Relevant identified uses of the substance or mixture and uses advised against

Recommended use Ink for inkjet printing

1.3. Details of the supplier of the safety data sheet

Company identification **MSSC, LLC.**
926 McDonough Lake Road, Collinsville, IL 62234, USA
Tel: 618-343-1006
Website: www.msscllc.com

1.4. Emergency telephone number

Phone number: 618-343-1006

Section 2: Hazard(s) identification

2.1. Classification of the substance or mixture

Product definition : Mixture

Classification according to Regulation (EC) No 1272/2008 [CLP]:

Physical hazards Flammable liquids. Category 2, H225
Health hazards Serious eye damage (Category 1), H318
Specific target organ toxicity - single exposure (Category 3), Central nervous system, H336
Sensitization, Skin (Category 1), H317

2.2. Label elements

Labeling according to Regulation (EC) No 1272/2008 [CLP]:

Pictograms



GHS02 GHS05 GHS07

Signal word

Danger

Hazard statements

H225- Highly flammable liquid and vapor.
H318- Causes serious eye damage
H336- May cause drowsiness or dizziness.
H317- May cause an allergic skin reaction.

Precautionary statements

Prevention

P210 - Keep away from heat/sparks/open flames/hot surfaces. - No smoking.
P233 - Keep container tightly closed.
P240 - Ground/Bond container and receiving equipment.
P241 - Use explosion-proof electrical/ventilating/lighting/equipment.
P242 - Use only non-sparking tools.
P243 - Take precautionary measures against static discharge.
P261- Avoid breathing dust/fume/gas/mist/vapors/spray.
P272- Contaminated work clothing should not be allowed out of the workplace.
P264 - Wash thoroughly after handling.

P270 - Do not eat, drink or smoke when using this product.
P280 - Wear protective gloves/protective clothing/eye protection/face protection.

Response P303+P361+P353: IF ON SKIN (or hair): Take off Immediately all contaminated clothing. Rinse SKIN with water [or shower].
P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P304 + P340 + P311 IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER/doctor.
P308+P313: IF exposed or concerned: Get medical advice/attention.
P370+P378- In case of fire: for small fires, use dry chemical, carbon dioxide, water spray or alcohol-resistant foam to extinguish. For large fires, use water spray, fog, or alcohol-resistant foam to extinguish. Use water spray to cool fire-exposed containers. Water may be ineffective. Do NOT use straight streams of water.

Storage P403 + P235 - Store in a well-ventilated place. Keep cool.
P405 - Store locked up.

Disposal P501- Dispose of contents/container in accordance with local/regional/national/ international regulations.

2.3. Other hazards

PBT Substances None

vPvB Substances: None

Other hazards The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

Section 3: Composition/information on ingredients

3.1. Substance No

3.2. Mixtures

Hazardous Components (Chemical Name)/ REACH Registration No.	CAS Number	EC Number	Concentration (%)	Classification
Ethanol	64-17-5	200-578-6	50-65	Flam. Liq. 2, H225 Eye Irrit. 2, H319
1-methoxy-2-propanol	107-98-2	203-539-1	≤ 10	Flam. Liq. 3: H226 STOT SE 3: H336
n-propanol	71-23-8	200-746-9	≤ 10	Flam. Liq. 2, H225 STOT SE 3: H336 Eye Dam. 1, H318
Poly[oxy(methyl-1,2-ethanediyl)], α,α'-(2,2-dimethyl-1,3-propanediyl)bis[ω-[(1-oxo-2-propen-1-yl)oxy]-	84170-74-1	617-546-6	≤ 5	Skin Sens. 1B: H317 Aquatic Chronic 3: H412
Acetone	67-64-1	200-662-2	≤ 3	Flam. Liq. 2: H225 Eye Irrit. 2: H319 STOT SE 3: H336
n-butanol	71-36-3	200-751-6	≤ 3	Flam. Liq. 3; H226 Acute Tox. 4; H302 Skin Irrit. 2; H315 Eye Dam. 1; H318

				STOT SE 3; H336, H335 Concentration limits: >= 20 %: STOT SE 3, H335; >= 20 %: STOT SE3, H336;
Diacetone alcohol	123-42-2	204-626-7	<3	Eye Irrit. 2 H319 Specific concentration limits: Eye Irrit. 2 (H319) : C>=10%

Section 4: First-aid measures

4.1. Description of first aid measures

In case of:

Inhalation	Move person to fresh air immediately. If symptoms persist, get immediate medical attention.
Skin contact	In case of contact, immediately remove contaminated clothing and flush skin with copious amounts of water. Wash clothing separately before reuse. Get medical attention, if needed.
Eye contact	In case of eye contact, remove contact lens and rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Get medical attention immediately.
Ingestion	Rinse mouth out with water. If the material is swallowed, get immediate medical attention or advice - Do not induce vomiting. Never give anything by mouth to an unconscious person. Get medical attention immediately.

4.2. Most important symptoms/ effects, acute and delayed

The most important known symptoms and effects are described in the labelling (see section 2.2) and/or in section 11

4.3. Indication of any immediate medical attention and special treatment needed

No special treatment needed, treat symptomatically.

Section 5. Fire-fighting measures

5.1. Extinguishing media

Suitable extinguishing media sand, carbon dioxide (CO₂) or dry chemical.

Unsuitable extinguishing media Not available.

5.2. Special hazards arising from the substance or mixture

In case of fire, smoke and other combustion products may be formed, the inhalation of such combustion products can have serious adverse effects on health.

5.3. Advice for firefighters

Wear suitable protective suit and self-contained breathing apparatus.

Section 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

For non-emergency personnel

- (a) the wearing of suitable protective equipment (including personal protective equipment referred to under section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing;
- (b) removal of ignition sources, provision of sufficient ventilation, control of dust; and
- (c) emergency procedures such as the need to evacuate the danger area or to consult an expert.

For personal protection see section 8.

6.2. Environmental precautions

Do not flush into surface water or sanitary sewer system.

6.3. Methods and materials for containment and cleaning up

Absorb or cover with dry earth, sand or other non-combustible material and transfer to sealable containers for disposal. Remove all sources of ignition. Use spark-proof tools and explosion-proof equipment.

6.4. Reference to other sections

For further and detailed information see section 8 and 13.

Section 7. Handling and storage

7.1 Precautions for safe handling

Advice on protection against fire and explosion

Keep away from open flames, hot surfaces and sources of ignition. Take precautionary measures against static discharge.

Hygiene measures

Change contaminated clothing. Wash hands after working with substance. For further precautions information see section 2.2.

7.2 Conditions for safe storage, including any incompatibilities

Keep containers tightly closed in a dry, cool and well-ventilated place. Keep away from heat, sparks and flame.

7.3 Specific end uses

No specific uses are stipulated.

Section 8. Exposure controls/personal protection

8.1 Control parameters National limit values

Occupational exposure limit values (Workplace Exposure Limits)

Country	Name of agent	CAS No	Notation	Identifier	TWA [ppm]	TWA [mg/m ³]	STEL [ppm]	STEL [mg/m ³]	Source
IE	n-butanol	71-36-3		OELV	20				S.I. No. 619 of 2001
EU	1-methoxy-2-propanol	107-98-2		IOELV	100	375	150	568	2000/39/EC
MT	1-methoxy-2-propanol	107-98-2		OELV	100	375	150	568	CAP. 424
GB	n-propanol	71-23-8		WEL	200	500	250	625	EH40/2005
GB	Diacetone Alcohol	123-42-2		WEL	50	241	75	362	EH40/2005
EU	Acetone	67-64-1			500	1210			2000/39/EC

Notation

STEL Short-term exposure limit: a limit value above which exposure should not occur and which is related to a 15-minute period (unless otherwise specified)

TWA Time-weighted average (long-term exposure limit): measured or calculated in relation to a reference period of 8 hours time-weighted average (unless otherwise specified)

i Inhalable fraction

r Respirable fraction

Relevant DNELs/DMELs/PNECs and other threshold levels

- human health values

	End point	Threshold level	Protection goal, route of exposure	Used in	Exposure time
Ethanol	DNEL	1.900 mg/m ³	human, inhalatory	worker (industry)	acute- systemic effects
	DNEL	343 mg/kg	human, dermal	worker (industry)	chronic - systemic effects
	DNEL	950 mg/m ³	human, inhalatory	worker (industry)	chronic - systemic effects
1-methoxy-2-propanol	DNEL	553.5 mg/m ³	human, inhalatory	worker (industry)	acute- systemic effects

	DNEL	369 mg/m ³	human, inhalatory	worker (industry)	chronic - systemic effects
	DNEL	183 mg/kg	human, dermal	worker (industry)	chronic - systemic effects
n-propanol	DNEL	1.723 mg/m ³	human, inhalatory	worker (industry)	chronic - local effects
	DNEL	268 mg/m ³	human, inhalatory	worker (industry)	chronic - systemic effects
	DNEL	1.723 mg/m ³	human, inhalatory	worker (industry)	acute - systemic effects
	DNEL	136 mg/kg bw/day	human, dermal	worker (industry)	chronic - systemic effects
N-Butanol	DNEL	310 mg/kg	human, inhalatory	worker (industry)	chronic - local effects
Acetone	DNEL	2.400 mg/m ³	human, inhalatory	worker (industry)	acute- systemic effects
	DNEL	1 210 mg/m ³	human, inhalatory	worker (industry)	chronic - systemic effects
	DNEL	186 mg/kg	human, dermal	worker (industry)	chronic - systemic effects
Diacetone alcohol	DNEL	32,6 mg/m ³	human, inhalatory	worker (industry)	chronic - systemic effects
	DNEL	240 mg/m ³	human, inhalatory	worker (industry)	chronic - local effects
	DNEL	467 mg/kg	human, dermal	worker (industry)	chronic - systemic effects
Poly[oxy(methyl-1,2-ethanediyl)], α,α'-(2,2-dimethyl-1,3-propanediyl)bis[ω- -[(1-oxo-2-propen-1-yl)oxy]-	DNEL	11.75 mg/kg	human, inhalatory	worker (industry)	chronic - systemic effects
	DNEL	3.3 mg/kg	human, dermal	worker (industry)	chronic - systemic effects
<ul style="list-style-type: none"> environmental values 					
	End point	Threshold level	Environmental compartment		
Ethanol	PNEC	0,79 mg/cm ³	marine water		
	PNEC	2,75 mg/cm ³	air		
	PNEC	3,6 mg/cm ³	freshwater sediment		
	PNEC	580 mg/cm ³	sewage treatment plant (STP)		
	PNEC	0,63 mg/cm ³	soil		
	PNEC	0,96 mg/cm ³	freshwater		
n-propanol	PNEC	1 mg/L	marine water		
	PNEC	2.28 mg/kg	marine sediment		
	PNEC	22.8 mg/kg	freshwater sediment		

	PNEC	10 mg/L	freshwater
	PNEC	96 mg/L	sewage treatment plant (STP)
	PNEC	2.2 mg/kg	soil
Diacetone alcohol	PNEC	2 mg/L	freshwater
	PNEC	0.2mg/L	marine water
	PNEC	10 mg/L	sewage treatment plant (STP)
	PNEC	7.4 mg/kg	freshwater sediment
	PNEC	0.74 mg/kg	marine sediment
	PNEC	0.31mg/kg	soil
N-Butanol	PNEC	0,0082 mg/l	marine water
	PNEC	0,178 mg/kg	freshwater sediment
	PNEC	2.476 mg/l	sewage treatment plant (STP)
	PNEC	0,015 mg/kg	soil
	PNEC	0,082 mg/l	freshwater
	PNEC	2,25 mg/l	Water
Acetone	PNEC	10.6 mg/L	freshwater
	PNEC	1.06 mg/L	marine water
	PNEC	100 mg/L	sewage treatment plant (STP)
	PNEC	30.4 mg/kg	freshwater sediment
	PNEC	29.5 mg/kg	soil
Poly[oxy(methyl-1,2-ethanediyl)], α,α' -(2,2-dimethyl-1,3-propanediyl)bis[ω -[(1-oxo-2-propen-1-yl)oxy]-	PNEC	0.003 mg/l	freshwater
	PNEC	0 mg/l	marine water
	PNEC	0.1 mg/l	sewage treatment plant (STP)
	PNEC	0.064 mg/kg	freshwater sediment
	PNEC	0.011 mg/kg	soil

8.2 Exposure controls

Individual protection measures, such as personal protective equipment

Eye/face protection



Wear safety glasses; chemical goggles (if splashing is possible).
Eye wash fountain and emergency showers are recommended.

Skin and body protection

Protective suit, Safety shoes.

Hand protection



Wear appropriate chemical resistant gloves.

Respiratory protection

Provide adequate ventilation. In case of insufficient ventilation wear suitable respiratory equipment.

Thermal hazards	Not available.
General hygiene considerations	Do not get this material in contact with skin. Avoid contact with skin, eyes and clothing. When using, do not eat, drink or smoke. Wash hands before breaks and immediately after handling the product. Launder contaminated clothing before reuse.

Section 9. Physical and chemical properties

9.1 Information on basic physical and chemical properties

Physical state	Liquid
Color	White
Odor	Characteristic
Melting point/freezing point;	Not available.
Boiling point or initial boiling point and boiling range	>70°C at 1,013 hPa - lit.
Flammability (solid, gas)	Not available.
Lower and upper explosion limit	Not available.
Flash point	19°C (closed-cup)
Auto-ignition temperature	Not available.
Decomposition temperature	Not available.
pH	Not available.
Viscosity (cPs)	Not available.
Solubility(ies)	Soluble in ethanol.
Partition coefficient n-octanol/water (log value)	Not available.
Vapor pressure	Not available.
Density and/or relative density	Not available.
Relative vapour density	Not available.
Particle characteristics	Not available.
9.2 Other information	Not available.

Section 10. Stability and reactivity

10.1 Reactivity	Not available.
10.2 Chemical stability	Stable at normal conditions.
10.3 Possibility of hazardous reactions	None known.
10.4 Conditions to avoid	Heat, flames and sparks.
10.5 Incompatible materials	Not available.
10.6 Hazardous decomposition products	Hazardous combustion products: see section 5

Section 11. Toxicological information

11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008

Acute toxicity value

Components	Species	Test results
Ethanol (CAS 64-17-5)		
Acute		
Inhalation (LC50)	Rat	124.7 mg/l – vapor 4 h
Oral (LD50)	Rat	10,470 mg/kg
n-propanol (71-23-8)		
Oral (LD50)	Rat	1,870 mg/kg
Dermal (LD50)	Rabbit	5,040 mg/kg
1-methoxy-2-propanol (CAS 107-98-2)		
Acute		
Inhalation (LC50)	Rat	10,000 mg/l, 5 Hour
Oral (LD50)	Mouse	11,700mg/kg
Dermal (LD50)	Rabbit	13,000mg/kg
Diacetone Alcohol (CAS 123-42-2)		
Acute		
Oral (LD50)	Rat	3.002 mg/kg
Dermal (LD50)	Rabbit	13.630 mg/kg
N-Butanol (71-36-3)		
Oral (LD50)	Rat	790 mg/kg
Dermal (LD50)	Rabbit	3.430 mg/kg
Poly[oxy(methyl-1,2-ethanediyl)], α,α'-(2,2-dimethyl-1,3-propanediyl)bis[ω-[(1-oxo-2-propen-1-yl)oxy]- (CAS 84170-74-1)		
Dermal (LD50)	Rat	>2000 mg/kg
Acetone (CAS 67-64-1)		
Acute		
Inhalation (LC50)	Rat	50.100 mg/m ³
Oral (LD50)	Rat	5.800 mg/kg
Dermal (LD50)	Guinea pig	7.426 mg/kg
Skin corrosion/irritation	Causes skin irritation	
Serious eye damage/eye irritation	Causes serious eye damage	
Respiratory or skin sensitisation	Not available.	
Germ cell mutagenicity	Not available.	
Carcinogenicity	Not available.	
Reproductive toxicity	Not available.	
STOT-single exposure;	May cause drowsiness or dizziness	
STOT-repeated exposure;	Not available.	
Aspiration hazard	Not available.	

11.2 Information on other hazards

11.2.1 Endocrine disrupting properties

Not available.

11.2.2 Other information

Not available.

Section 12. Ecological information

12.1 Toxicity

Aquatic toxicity

Components		Species	Test Results
Ethanol (CAS 64-17-5)			
Aquatic			
Crustacea	EC50	Water flea (<i>Daphnia magna</i>)	7.7 - 11.2 mg/l, 48 hours
Fish	LC50	Fathead minnow (<i>Pimephales promelas</i>)	> 100 mg/l, 96 hours
n-propanol (71-23-8)			
Fish	EC50	<i>Pimephales promelas</i> (fathead minnow)	4.555 mg/l - 96 h
Toxicity to daphnia and other aquatic invertebrates	EC50	<i>Daphnia magna</i> (Water flea)	3.642 mg/l - 48 h
Toxicity to algae	EC50	<i>Pseudokirchneriella subcapitata</i> (green algae)	9.170 mg/l - 48 h
1-methoxy-2-propanol (CAS 107-98-2)			
Fish	LC50	<i>Oncorhynchus mykiss</i> (rainbow trout)	>1000 mg/l - 96 h
Acetone (CAS 67-64-1)			
Fish	LC50	<i>Oncorhynchus mykiss</i> (rainbow trout)	5.540 mg/l - 96 h
Daphnia and other aquatic invertebrates	LC50	<i>Daphnia magna</i> (Water flea)	8,800 mg/l - 48 h
Diacetone Alcohol (CAS 123-42-2)			
Fish	LC50	<i>Oryzias latipes</i> (Orange-red killifish)	> 100 mg/l - 96 h
Daphnia and other aquatic invertebrates	EC50	<i>Daphnia magna</i> (Water flea)	> 1.000 mg/l - 48 h
Algae	IC50	<i>Pseudokirchneriella subcapitata</i> (green algae)	1.000 mg/l - 72 h
Bacteria	EC50	activated sludge	> 1.000 mg/l - 3 h
N-Butanol (CAS 71-36-3)			
Fish	LC50	<i>Pimephales promelas</i> (fathead minnow)	1.376 mg/l; 96 h
Daphnia and other aquatic invertebrates	EC50 NOEC	<i>Daphnia</i> and other aquatic invertebrates	1.328 mg/l; 48 h 4.1 mg/l – 21d
Poly[oxy(methyl-1,2-ethanediyl)], α,α'-(2,2-dimethyl-1,3-propanediyl)bis[ω-[(1-oxo-2-propen-1-yl)oxy]- (CAS 84170-74-1)			
Fish	LC50	<i>Danio rerio</i>	2.7 mg/l - 96 h
Daphnia and other aquatic invertebrates	EC50	<i>Daphnia magna</i>	37 mg/l - 48 h
Algae	IC50	<i>Pseudokirchneriella subcapitata</i>	11 mg/l - 72 h

12.2 Persistence and degradability

Data are not available.

12.3 Bioaccumulative potential

Does not significantly accumulate in organisms.

12.4 Mobility in soil

Data are not available.

12.5 Results of PBT and vPvB assessment	According to the results of its assessment, this substance is not a PBT or a vPvB
12.6 Endocrine disrupting properties	Does not contain an endocrine disruptor (EDC) in a concentration of $\geq 0,1\%$.
12.7 Other adverse effects	Data are not available.

Section 13. Disposal considerations

13.1 Waste treatment methods

Product	Dispose of waste material in accordance with local, state and federal pollution regulations.
Contaminated packaging	When disposing of an empty container, dispose after removing contents materials completely. Only store in correctly labelled containers.

Section 14. Transport information

14.1 UN number

ADR/RID: UN1210 AND: UN1210 IMDG: UN1210 IATA: UN1210

14.2 UN proper shipping name

ADR/RID: Printing Ink AND: Printing Ink IMDG: Printing Ink IATA: Printing Ink

14.3 Transport hazard class(es)

ADR/RID: Class 3 AND: Class 3 IMDG: Class 3 IATA: Class 3

14.4 Packing group

ADR/RID: II AND: II IMDG: II IATA: II

14.5 Environmental hazards

ADR/RID: None AND: None IMDG: None IATA: None

14.6 Special precautions for user

Not applicable

14.7 Maritime transport in bulk according to IMO instruments

Not applicable

Section 15 - Regulatory Information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

EU legislation Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH) (as amended).

Guidance Workplace Exposure Limits EH40. Safety Data Sheets for Substances and Preparations.

15.2. Chemical safety assessment No chemical safety assessment has been carried out.

Section 16 - Other Information

Issue date 29-June-2021

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Version # 1.3

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